



Project Delivery Network
Survey/Mapping QC Checklist

Version
01/16/2011

QC Manager:
James Olszewski

Introduction

The Project Delivery Network Survey/Mapping QC Checklist is to be used with the UDOT QC/QA Procedures. This checklist is a tool to assist the project team in verifying all work is produced with due diligence, using acceptable industry standard techniques, available resources and data, and reasonable decisions by competent professionals. The checklist is a tool for the delivery of quality documents and cannot replace the sound judgment and experience of competent professionals. It is the Design Team's responsibility to verify the quality of project documents **before** distribution.

Checklist Instructions

For each deliverable listed, the QC Checker is to verify all items listed in the checklist are complete, along with any additional items the QC Checker deems necessary. The checklist items are not to be interpreted as the only items that need to be verified.

Once all items are verified, the QC Checker is to sign the associated cover sheet and upload it onto ProjectWise. The QC is not complete until the cover sheet is signed, dated, and uploaded onto ProjectWise. See the Project Delivery Network QC/QA Procedure for the appropriate cover sheet.

QC reviews are to be completed **before** distribution.

The following explanations are to aid in completing the QC checklist items:

- A checklist item deemed "complete", "correct", or "accurate" does not denote that the item is perfect, but rather that the item satisfies design criteria based on known information, acceptable techniques, and sound judgment."
- A checklist item deemed "addressed" denotes the item as "reviewed all known concerns and verified the concerns are appropriately mitigated and satisfy design criteria." Addressed concerns are not necessarily incorporated into the design, but satisfactorily mitigated.
- A checklist item deemed "identified" denotes the item as "an acceptable and economical approach to satisfy design criteria based on known information."
- A checklist item deemed "verified" denotes the item as "verified the approach/conclusion as acceptable based on known information."
- Use the check boxes to verify checklist items are complete. If a checklist item is *not applicable* to the current project, place an NA over the check box to denote the item as not applicable. This will allow the quality assurance to verify all items were addressed.
- Use the comment sections of the Cover Sheets to address exceptions, assumptions, and unique aspects of the project. The comments will help others understand why certain decisions were made and their impacts on the project.

Survey Instructions

Use the checklist for all survey submittals.

All files are to be named according to UDOT standards for ProjectWise, project_pin_name.

[Base Mapping File Certification](#): This certification is to verify that all submitted design files have been quality controlled. See the UDOT Quality Control/Quality Assurance Procedures and the following checklist for information on verifying design files.

For each submittal (partial, final, or supplemental), the Base Mapping File Certification is to be filled out and uploaded onto ProjectWise **before** distribution.

- Match the location/concept exactly with ePM
- Create a submittal number that is clear and logical
- Check the boxes of the file types that are included in the submittal as either partial or final
- Include the entire name of each file verified
- For partial submittals, identify in the comment field the location of the partial submittal
- Use the comment field to describe all deviations
- Type (print) the name of the Licensed Surveyor and Company on the lines provided

1B1/4B1 Develop Base Mapping/Existing Surface

Obtain base mapping and topography for the entire project area. Coordinate with the project team to identify additional survey requirements.

References

1. [UDOT Mapping and Aerial Photogrammetry Manual](#)
 2. [UDOT CADD Standards](#)
 3. [UDOT Plan Sheet Development Standards](#)
 4. [UDOT Project Delivery Network](#)
 5. [UDOT QC/QA Procedures](#)
 6. [Base Mapping File Certification](#)
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Survey Control Sheet

1. ☐ The basis of survey is appropriate.
2. ☐ The following basis of survey elements are included and correct:
 - a. ☐ Section corners
 - b. ☐ Existing ROW markers
 - c. ☐ USGS Monuments
 - d. ☐ State plane coordinate system
 - e. ☐ Local survey monuments
 - f. ☐ Project specific control monuments
 - g. ☐ Latitude, longitude, and height
 - h. ☐ Project coordinates
3. ☐ All control points have northing, easting, and elevation with equivalents in the State Plane Coordinate System and latitude, longitude, and height.
4. ☐ The section, township, and range are correct.
5. ☐ Depending on the scope of the project, the following are correct:
 - a. ☐ Paragraph describing the projection parameters
 - b. ☐ The basis of bearing, including the primary control monuments
6. ☐ Bearing and distance between found section corners are correct.
7. ☐ The use of U.S. Survey Feet or International Feet is clearly and correctly identified.
8. ☐ The level of accuracy is correct.
9. ☐ All numeric values are correct.
10. ☐ All text content is clear and correct.
11. ☐ **Survey control sheet** is complete.

- a. ☐ The survey control sheet follows UDOT CADD Standards.
- b. ☐ Conforms to *Plan Sheet Develop Standards*.
 - i. ☐ General plan sheet requirements
 - ii. ☐ Title sheet and sheet 1's requirements
- c. ☐ All necessary notes, callouts, dimensions, and symbols are included and correct.

Base Mapping

- 1. ☐ All points, lines, levels, and notes conform to UDOT CADD standards.
- 2. ☐ All objects are on the correct UDOT standard levels.
- 3. ☐ The DGN, DTM, ASCII, FWD, and excel/word files are consistent (i.e. what is shown in one file, is consistent with the others).
- 4. ☐ The DGN and DTM are have no inconsistencies in the surface.
- 5. ☐ The QC Certification was filled out and signed by the reviewer.